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CHECKLIST

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Checklist of the family Culicidae (Diptera) in Finland

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Abstract

A checklist of the Culicidae (Diptera) recorded from Finland is provided.

Keywords
Checklist, Finland, Diptera, Culicidae, mosquitoes

Introduction

The family Culicidae comprises 3539 extant species world-wide. The Finnish fauna is relatively small in relation to world fauna. Because of medical importance this family has been extensively taxonomically studied but still new species are discovered. The generic and subgeneric classifications of Culicidae follow Reinert et al. 2009. Because of some confusing use of names in the first half of the twentieth century in the Finnish literature, all available names are included in the list for clarity. The most important work on the Finnish mosquitoes was done by Pirkka Utrio (1975, 1976, 1977, 1978, 1979).

Number of species:
World: 3539 extant species + 25 fossil species (Harbach 2014)
Europe: 104 species (Snow and Ramsdale 2004)
Finland: 38 species

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Checklist

suborder Nematocera Dumeril, 1805
infraorder Culicomorpha Hennig, 1948
superfamily Culicoidea Meigen, 1818

CULICIDAE Meigen, 1818
ANOPHELINAE Grassi, 1900
Anopheles Meigen, 1818
sg. *Anopheles* Meigen, 1818
Anopheles beklemishevi Stegni & Kabanova, 1976
= *maculipennis* auct. in part
Anopheles claviger (Meigen, 1804)
Anopheles messeae Falleroni, 1926
= *claviger* (of Fabricius, 1805) auct. nec Meigen, 1804
= *maculipennis* auct. in part
CULICINAE Meigen, 1818
Aedes Meigen, 1818
Aedes cinereus Meigen, 1818
Aedimorphus Theobald, 1903
Aedes vexans (Meigen, 1830)
Coquillettidia Dyar, 1905
Coquillettidia richiardii (Ficalbi, 1889)
Culex Linnaeus, 1758
sg. *Culex* Linnaeus, 1758
Culex pipiens Linnaeus, 1758
Culex torrentium Martini, 1925
sg. *Neoculex* Dyar, 1905
Culex territans Walker, 1856
= *apicalis* auct. nec Adams, 1903
Culiseta Felt 1904
= *Theobaldia* Neveu-Lemaire, 1902 preocc.
sg. *Culicella* Felt, 1904
Culiseta morsitans (Theobald, 1901)
Culiseta ochroptera Peus, 1935
sg. *Culiseta* Felt, 1904
Culiseta alaskaensis (Ludlow, 1906)
Culiseta annulata (Schrank, 1776)
Culiseta bergrothi (Edwards, 1921)
= *glaphyroptera* auct. nec (Shiner, 1864)
Culiseta subochrea (Edwards, 1921)
Dahliana Reinert, Harbach & Kitching, 2006
Dahliana geniculata (Olivier, 1791)
Ochlerotatus Lynch Arribalzaga, 1881

sg. *Ochlerotatus* Lynch Arribalzaga, 1881
Ochlerotatus annulipes (Meigen, 1830)
Ochlerotatus euedes (Howard, Dyar & Knab, 1913)
= *beklemishevi* Denisova, 1955
Ochlerotatus cantans (Meigen, 1818)
= *waterhousei* (Theobald in Waterhouse, 1905)
= *maculatus* auct. nec (Meigen, 1804)
= *rusticus* auct. nec (Rossi,1790)
Ochlerotatus caspius (Pallas, 1771)
Ochlerotatus cataphylla Dyar, 1916
Ochlerotatus communis (De Geer, 1776)
= *nemorosus* (Meigen, 1818)
Ochlerotatus cyprius Ludlow, 1920
= *freyi* Edwards, 1921
Ochlerotatus diantaeus Howard, Dyar & Knab, 1912
Ochlerotatus dorsalis (Meigen, 1830)
Ochlerotatus excrucians (Walker, 1848)
Ochlerotatus flavescens (Müller, 1776)
= *lutescens* (Fabricius, 1775)
= *variegatus* (Schrank, 1781)
Ochlerotatus hexodontus Dyar, 1919
Ochlerotatus impiger (Walker, 1848)
= *parvulus* (Edwards 1921)
= *nearcticus* auct. nec (Dyar, 1922)
Ochlerotatus intrudens Dyar, 1919
Ochlerotatus leucomelas (Meigen, 1804)
Ochlerotatus nigrinus (Eckstein, 1918)
= *sticticus* auct. nec Meigen 1828
Ochlerotatus nigripes (Zetterstedt, 1838)
= *alpinus* auct. nec (Linnaeus) nomen dubium
Ochlerotatus pionips Dyar, 1919
Ochlerotatus pullatus (Coquillett, 1904)
Ochlerotatus punctodes Dyar, 1922
Ochlerotatus punctor (Kirby, 1837)
Ochlerotatus riparius Dyar & Knab, 1907

Notes

***Anopheles maculipennis* Meigen, 1818**. Not recorded in Finland. All previous reports refer to *An. messeae* or *An. beklemishevi*.

Anopheles claviger (of Fabricius, 1805). Mistaken name usage for *Anopheles maculipennis* s. lat. in the early 20th century Finnish literature which then followed the Italian tradition.

***Culex pipiens* f. *molestus* Forskåhl, 1775**. This is not a valid species level taxon. It is a man biting form of the mainly bird biting *Culex pipiens*. Both have been reported from Finland.

***Dahliana geniculata* (Oliver, 1791)**. A possibly occasional specimen of this species was collected in Western Finland, verified by Christine Dahl (Itämies 1981).

***Ochlerotatus alpinus* L. Frey (1921)** included this invalid species name (see Harbach 2014) in the Finnish list with a question mark. Hellén (1931) withdrew it from the Finnish list. According to Utrio (1977), Frey refers to *nigripes* (Zetterstedt, 1838).

***Ochlerotatus behningi* Martini, 1926**. The species is listed for both Finland and Sweden in Dahl (1997). Lundström et al. (2013) do not accept the report for Sweden because of absence of documented locality. Based on the same argument, we do not include this species in the Finnish list.

***Ochlerotatus* (*Rusticoidus*) *rusticus* (Rossi, 1790)**. Dahl (1997) listed this species for Finland. There are, however, no confirmed collections of the species in Finland. Frey (1921) listed *Aedes maculatus* Meigen (with *A. waterhousei* Theobald as a presumed synonym) from Finland. According to Natvig (1948), Meigen made a mistake in 1830 when he stated that "*maculatus* is the male of *cantans*" instead of "*reptans* is the male of *cantans*", leading to a switch in synonyms. According to Minar (1990) the correct combinations should be as follows: *maculatus* Meigen is a synonym of *rusticus* (Rossi) and both *reptans* (Meigen) and *waterhousei* (Theobald) are synonyms of *cantans* (Meigen). From this context, it is obvious that Frey refers to the common species *cantans* and not to the southern species *rusticus*.

***Ochlerotatus sticticus* (Meigen, 1838)**. The species was reported from Finland (Kilpisjärvi) by Frey (1932) and listed for Finland in Frey and Storå (1941). According to Natvig (1948) and Utrio (1979) this record refers to *Aedes nigrinus* (Eckstein). In addition, it was reported by Syrjämäki (1960) in Finland (Hanko: Tvärminne) but later withdrawn by the author according to Utrio (1979, personal communication). It was also included for Finland in Dahl (1997), probably based on the former reports. According to Gutsevich et al. (1970) this species occurs in Russian Karelia. Thus, *A. sticticus* is not included in the Finnish list.

***Culex apicalis* Adams, 1903**. Originally reported by Martini (1928) from Finland. All European reports of this Nearctic species before 1950 represent the closely related Holarctic species *Culex territans* (Becker et al. 2003).

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